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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,888	06/25/2003	Szuping Lu	018940-023	2267

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EXAMINER
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SELLERS, ROBERT E

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/602,888

Applicant(s)

LU ET AL.

Examiner

Robert Sellers

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 and 19-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/15/03 & 4/29/05.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

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1. The election with traverse of Group II in the reply filed on July 29, 2005 is acknowledged. The traversal is on the grounds that because the inventions of Groups I, II, III and IV are closely related and a proper search of any of the claims should, by necessity, require a proper search of the others. This is not found persuasive because the separate classifications of the Groups in the restriction and election of species requirement mailed June 29, 2005 on page 2 establishes a serious search burden.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-9 and 19-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction requirement in the reply filed on July 29, 2005.

2. Claims 14 and 15 are identical.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 10-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent No. 5-171103 (Japanese '103) or Yabuta et al. Patent No. 6,313,221 or Japanese Patent No. 3-179067 (Japanese '067).

3. Japanese '103 (translation, page 10, Table 2) shows acrylic copolymers (B) having an epoxy equivalent weight of from 230-1500, a number average molecular weight of from 500-10,000 and a glass transition temperature  $T_g$  of from  $-20$  to  $40^{\circ}\text{C}$  (Derwent abstract and the translation, page 5, paragraph 20) derived from glycidyl (meth)acrylate (page 5, paragraph 19, line 2), a caprolactone (meth)acrylate (page 5, paragraph 19, lines 4-7) of Formula 8 conforming to claimed formula II (the bottom of page 3 wherein  $q = 0$  and  $R^9$  and  $R^{10}$  are hydrogen) such as Placel FM's 1 to 4 (deemed to be a suitable species according to the instant specification on page 6, paragraph 26), and other monomers (page 4, paragraph 17 and page 5, paragraph 19, lines 10-11).

4. Yabuta et al. sets forth a powder coating containing an epoxy-containing acrylic resin (col. 2, lines 52-55) having an epoxy equivalent weight of from 100-1000 (col. 6, lines 21-23), a number average molecular weight of from 2000-4000 (col. 6, lines 9-10) and a  $T_g$  of from  $20$ - $100^{\circ}\text{C}$  (col. 5, lines 31-33) prepared from 45% by weight of glycidyl methacrylate, 3% and 15% by weight of a hydroxyl-containing monomer such as the exemplified 2-hydroxyethyl methacrylate or a Plaxel [sic] FM reaction product of 2-hydroxyethyl (meth)acrylate and polycaprolactone (col. 5, lines 9-14), and 52% and 40% by weight of other monomers (col. 22, Table 3, Resin R2 and col. 26, Table 5, Acrylic Resins R6 and R10).


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5. The abstracts for Japanese '067 show an epoxy group-containing acrylic copolymer with a number average molecular weight of from 1000-50,000 (Patent Abstracts of Japan) obtained from 30.0% by weight of glycidyl methacrylate, 20% by weight of Placel FM-2 caprolactone (meth)acrylate, and 50% by weight of other monomers (Derwent abstract). Based on the equivalent molecular weights and glycidyl methacrylate contents of the prior art and claims, the copolymer of Japanese '067 inherently possesses the Tg of claim 13 and the epoxy equivalent weight of claim 14.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. Shinohara et al. Patent No. 5,756,777 has been designated as an X reference in the International Search Report and Written Opinion submitted April 29, 2005. Examples 26-37 in columns 40-46 show epoxy group-containing (meth)acrylates not within the confines of claimed formula I wherein R<sup>9</sup> is limited to a C<sub>1</sub> to C<sub>4</sub> alkyl group and no carbon atom of the epoxy ring is substituted as required in the reference by general formula (1-2) (col. 5, lines 34-53).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Sellers whose telephone number is (571) 272-1093. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

  
Robert Sellers  
Primary Examiner  
Art Unit 1712

rs  
8/20/2005